

Light Bars and Bargraphs

Order code	Manufacturer code	Description
56-1900	KB-2300EW	2 LED 5MM RED LIGHT BAR
56-1905	KB-A100SRW	2 LED 5MM SUPER RED LIGHT BAR
56-1910	KB-2500SGD	2 LED 5MM GREEN LIGHT BAR
56-1915	KB-2400YW	2 LED 5MM YELLOW LIGHT BAR
56-1920	KB-2350EW	4 LED 5MM RED LIGHT BAR
56-1925	KB-B100SRW	4 LED 5MM SUPER RED LIGHT BAR
56-1930	KB-2550SGD	4 LED 5MM GREEN LIGHT BAR
56-1935	KB-2450YW	4 LED 5MM YELLOW LIGHT BAR
56-1955	n/a	n/a
56-1960	KB-2655EW	KB-2655EW RED LIGHT BAR
56-1965	KB-C100SRW	KB-C100SRW SUPER RED LIGHT BAR
56-1970	KB-2855SGD	KB-2855SGD GREEN LIGHT BAR
56-1975	KB-2755YW	KB-2755YW YELLOW LIGHT BAR
56-1980	KB-2620EW	KB-2620EW RED LIGHT BAR
56-1995	KB-2720YW	KB-2720YW YELLOW LIGHT BAR
56-2000	n/a	n/a
56-2020	KB-2685EW	KB-2685EW RED LIGHT BAR
56-2025	KB-H100SRW	KB-H100SRW SUPER RED LIGHT BAR
56-2030	KB-2885SGW	KB-2885SGW GREEN LIGHT BAR
56-2035	KB-2785YW	KB-2785YW YELLOW LIGHT BAR

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The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

Kingbright®

LED LIGHT BARS

KB-A100SRW,-B100SRW,-C100SRW,-D100SRW,-E100SRW,
 -F100SRW,-G100SRW,-H100SRW
 KB-2300EW,-2350EW,-2655EW,-2600EW,-2620EW,-2635EW,-2670EW
 -2685EW,-2500SGD,-2550SGD,-2855SGD,-2800SGD,-2820SGD,
 -2835SGD-2870SGD,-2885SGD,-2400YW,-2450YW,-2755YW,
 -2700YW,-2720YW,-2735YW,-2770YW,-2785YW

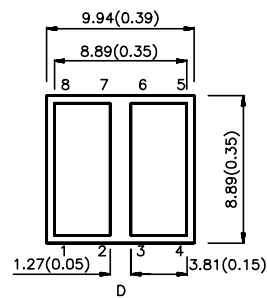
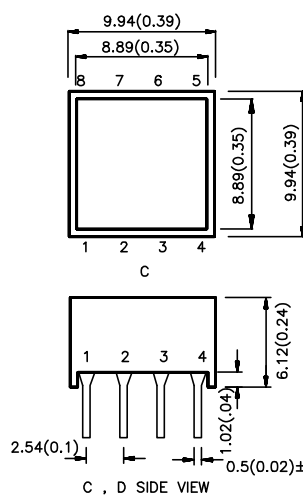
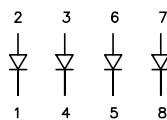
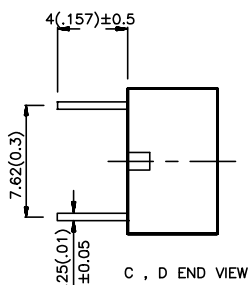
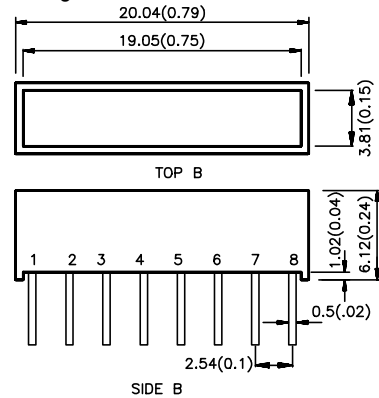
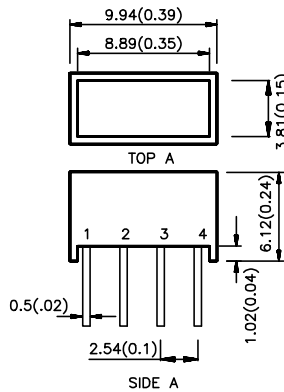
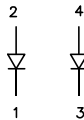
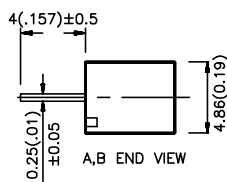
Features

- UNIFORM LIGHT EMITTING AREA.
- LOW CURRENT OPERATION.
- EASILY MOUNTED ON P.C. BOARDS.
- FLUSH MOUNTABLE.
- EXCELLENT ON/OFF CONTRAST.
- CAN BE USED WITH PANELS AND LEGEND MOUNTS.
- CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.

Description

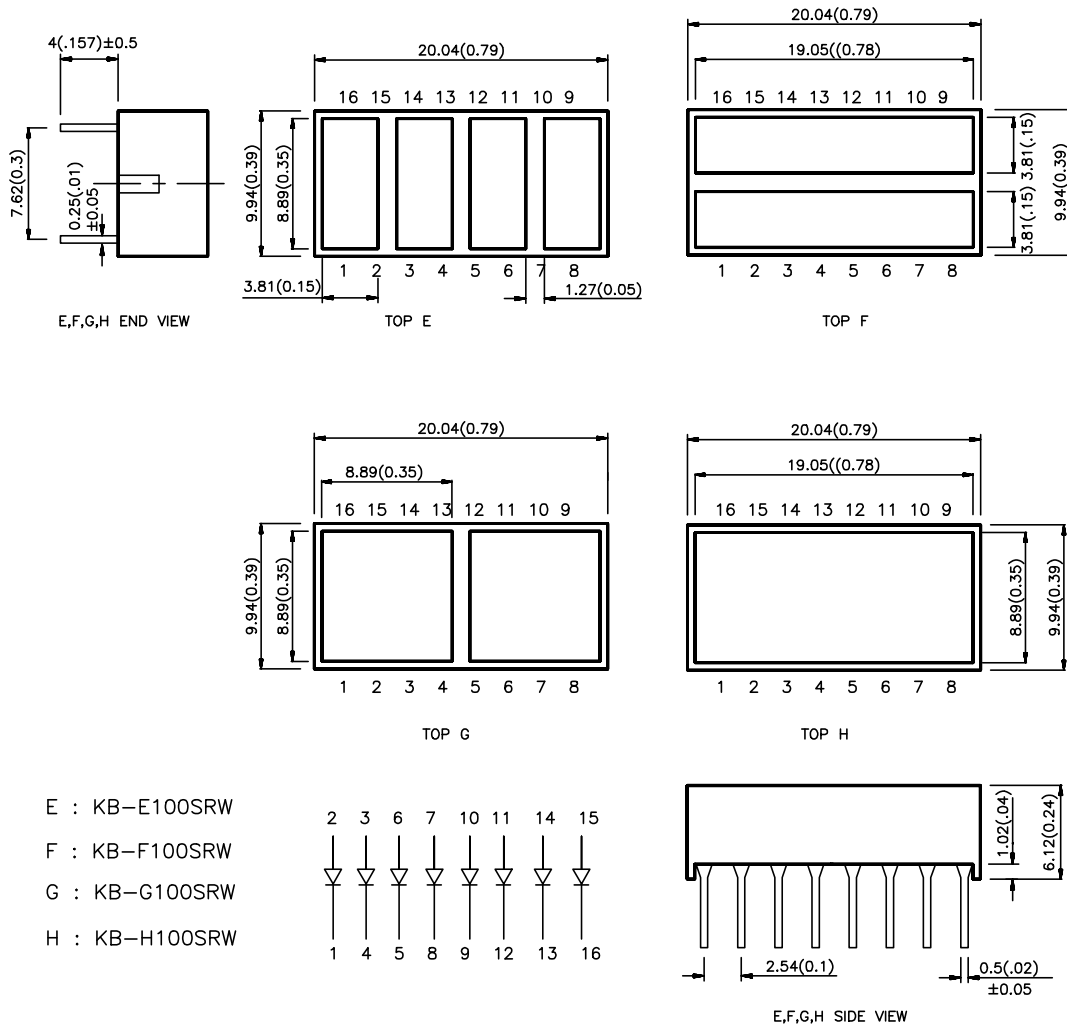
The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.
 The Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.
 The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.
 The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram



- A : KB-A100SRW
- B : KB-B100SRW
- C : KB-C100SRW
- D : KB-D100SRW





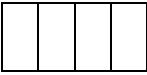
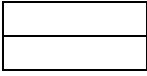


Package Dimensions & Internal Circuit Diagram



Notes :

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
2. Specifications are subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Size of Light Emitting Areas
			Min.	Typ.	Package Outline
KB-2300EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	10	25	8.89mmx3.81mm 
KB-A100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	15	40	
KB-2400YW	YELLOW (GaAsP/GaP)	White Diffused	8	18	
KB-2500SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	10	25	
KB-2350EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	50	19.05mmx3.81mm 
KB-B100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	
KB-2450YW	YELLOW (GaAsP/GaP)	White Diffused	15	38	
KB-2550SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2655EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	45	8.89mmx8.89mm 
KB-C100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	
KB-2755YW	YELLOW (GaAsP/GaP)	White Diffused	15	35	
KB-2855SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2600EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	10	25	8.89mmx3.81mm 
KB-D100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	15	40	
KB-2700YW	YELLOW (GaAsP/GaP)	White Diffused	8	18	
KB-2800SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	10	25	
KB-2620EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	10	25	8.89mmx3.81mm 
KB-E100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	15	40	
KB-2720YW	YELLOW (GaAsP/GaP)	White Diffused	8	18	
KB-2820SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	10	25	
KB-2635EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	50	3.81mmx19.05mm 
KB-F100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	
KB-2735YW	YELLOW (GaAsP/GaP)	White Diffused	15	38	
KB-2835SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2670EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	20	45	8.89mmx8.89mm 
KB-G100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	30	80	
KB-2770YW	YELLOW (GaAsP/GaP)	White Diffused	15	35	
KB-2870SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	20	50	
KB-2685EW	HIGH EFFICIENCY RED (GaAsP/GaP)	White Diffused	25	80	8.89mmx19.05mm 
KB-H100SRW	SUPER BRIGHT RED (GaAlAs)	White Diffused	40	150	
KB-2785YW	YELLOW (GaAsP/GaP)	White Diffused	25	70	
KB-2885SGD	SUPER BRIGHT GREEN (GaP)	Green Diffused	30	100	

Electrical Maximum Ratings at T_A=25°C

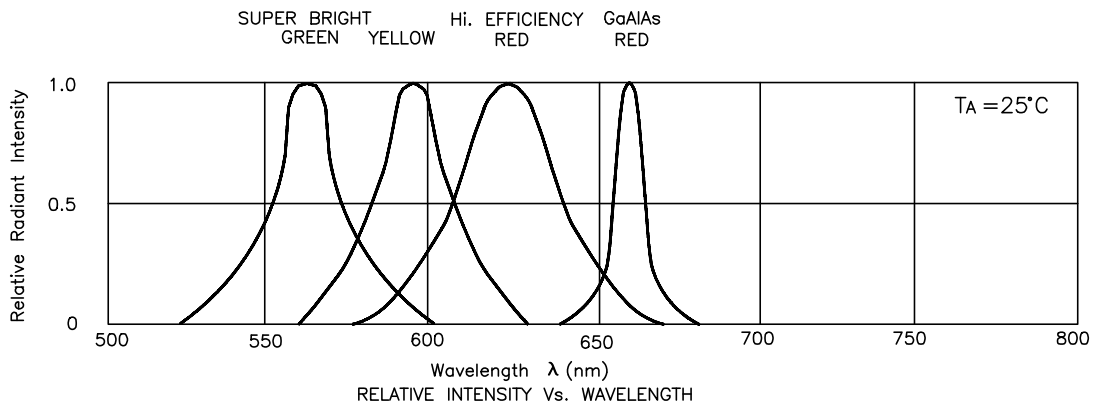
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Green Yellow Super Bright Red	625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Super Bright Green Yellow Super Bright Red	45 30 35 20		nm	IF=20mA
C	Capacitance	High Efficiency Red Super Bright Green Yellow Super Bright Red	12 45 10 95		pF	VR=0V;f=1MHz
V _F	Forward Voltage	High Efficiency Red Super Bright Green Yellow Super Bright Red	2.0 2.2 2.1 1.85	2.5 2.5 2.5 2.5	V	IF=20mA
I _R	Reverse Current	All	10		uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

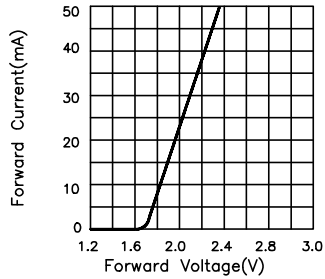
Parameter	High Efficiency Red	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	105	105	100	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	150	150	150	150	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40 °C To +85 °C				
Lead Soldering Temperature [2]	260 °C For 5 Seconds				

Notes:

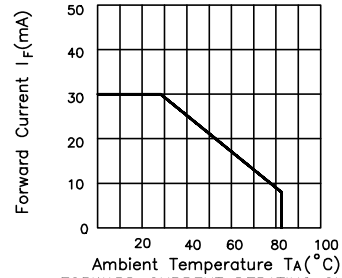
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



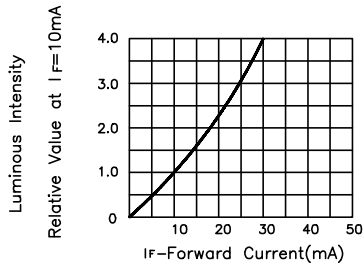
High Efficiency Red



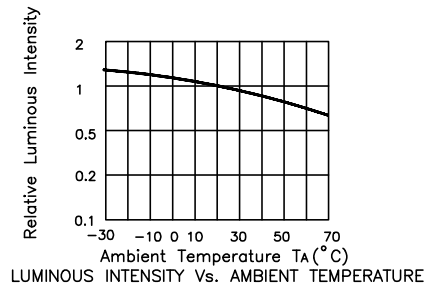
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

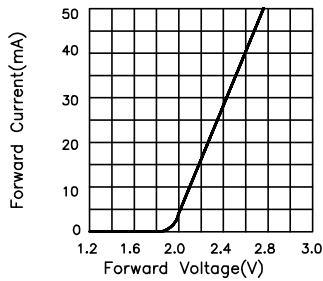


LUMINOUS INTENSITY Vs. FORWARD CURRENT

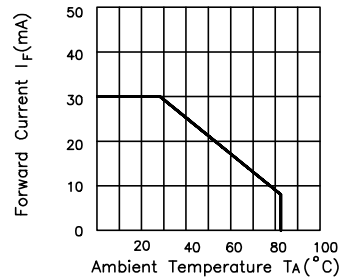


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

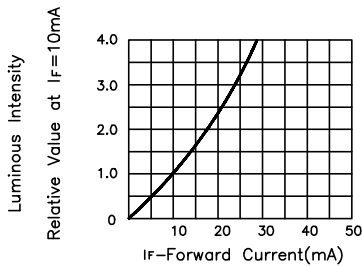
Yellow



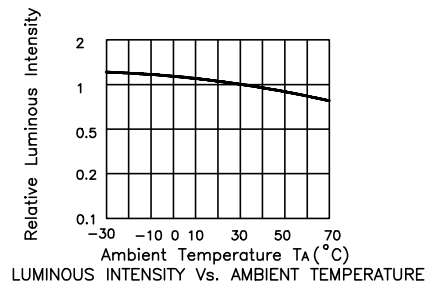
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

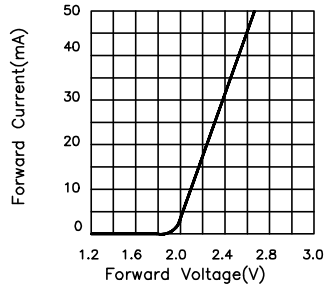


LUMINOUS INTENSITY Vs. FORWARD CURRENT

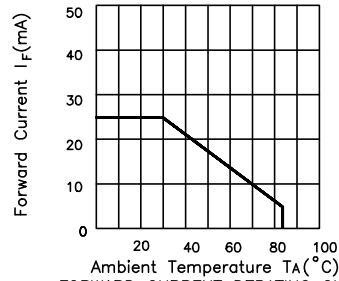


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

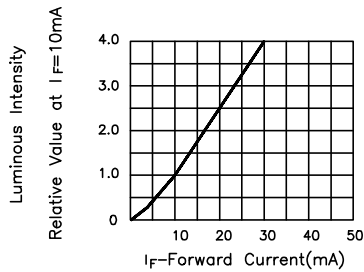
Super Bright Green



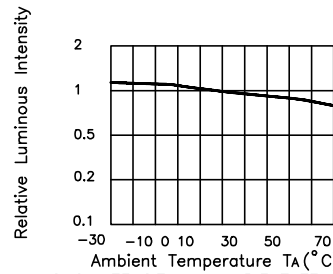
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

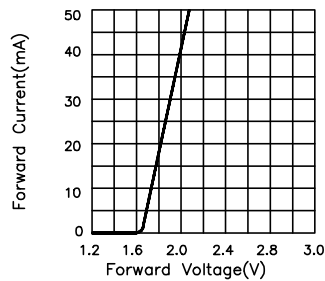


LUMINOUS INTENSITY Vs. FORWARD CURRENT

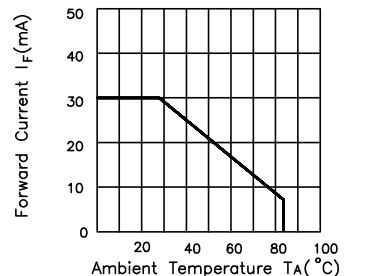


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

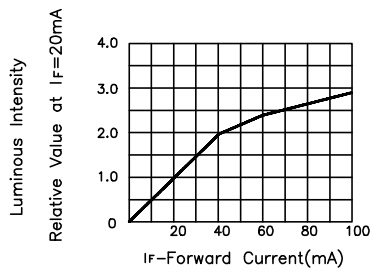
Super Bright Red



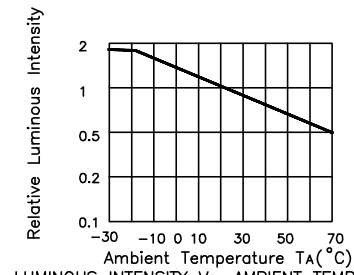
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE